

Appl. No. 09/998,904  
Amdt. dated Apr. 3, 2007  
Reply to Office Action of Jan. 3, 2007

**Amendments to the Drawings:**

The attached sheet of drawings includes changes to Figure 2. This sheet, which includes Figures 2a, 2b and 2c, replaces the original sheet including Figure 2. The three graphs in Figure 2 have been identified separately as Figure 2a, Figure 2b and Figure 2c.

Attachment: Replacement Sheet  
Annotated Sheet Showing Changes

## **REMARKS/ARGUMENTS**

Claims 1-3, 5-7, 9-10, 12, 22, 37-42, 44-53, 56-57 and 203-204 are currently pending in the application. Claims 4, 8 and 54 have been cancelled without prejudice. Claims 11, 13-21, 23-36, 58-202 and 205-213 have been withdrawn without prejudice because they are drawn to a non-elected invention. Applicants respectfully submit that no additional fees are due at this time.

Applicants respectfully submit that the foregoing amendments to the claims are supported in the application as originally filed and that no new matter has been added. In view of the following remarks and amendments, applicants respectfully request a timely Notice of Allowance be issued in this case.

### ***Objections to the Drawings***

The Office objected to Figure 2 because Figure 2 does not contain the labels 2a, 2b and 2c. The three graphs in Figure 2 have been identified separately as Figure 2a, Figure 2b and Figure 2c. Applicants respectfully request acceptance of the changes and withdrawal of the objections.

### ***Claim Objections***

The Office objected to claim 57 because the phrase "is determined" is unclear. Claims 56 and 57 have been amended to use the phrase "is performed." Applicants respectfully request withdrawal of the objections.

### ***Claim Rejections under 35 U.S.C. § 101***

Claims 1-3, 5-7, 9-10, 12, 22, 37-42, 44-53, 56 and 57 were rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. More specifically, the Office asserts that there is no tangible result (i.e., the "result is not presented, 'output,' or otherwise communicated to a user in a tangible form"). Claim 1 has been amended to output the identified locations of the single nucleotide polymorphisms. Applicants respectfully submit that this amendment is supported by the graphs, tables, sequence listings and other portions of the specification as filed. Applicants respectfully submit that the claims, as amended, are patentable under 35 U.S.C. § 101. Accordingly, Applicants request the withdrawal of the rejections and allowance of claims 1-3, 5-7, 9-10, 12, 22, 37-42, 44-53, 56 and 57.

### ***Claim Rejections under 35 U.S.C. § 112, Second Paragraph***

Claims 1-3, 5-7, 9-10, 12, 22, 37-42, 44-53, 56-57 and 204 were rejected under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicants respectfully submit that appropriate amendments have been made to the claims. For example,

Applicants respectfully submit that “the locations of the bases in the nucleic acid sequence where single nucleotide polymorphisms will likely occur” is clear and distinctly claims the invention in light of the specification and common knowledge of those skilled in the art. As a result, Applicants respectfully submit that the claims distinctly claim the invention are required by 35 U.S.C. § 112, second paragraph. Accordingly, Applicants request the withdrawal of the rejections and allowance of all pending claims.

***Allowed Claims***

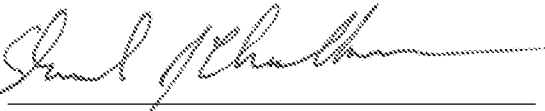
Applicants gratefully acknowledge the allowance of claim 203.

***Conclusion***

Applicants respectfully submit that claims 1-3, 5-7, 9-10, 12, 22, 37-42, 44-53, 56-57 and 203-204, as amended, are fully patentable. Applicants respectfully request that a timely Notice of Allowance be issued in this case. If the examiner has any questions or comments, or if further clarification is required, it is requested that the examiner contact the undersigned at the telephone number listed below.

Respectfully submitted,

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Attachments